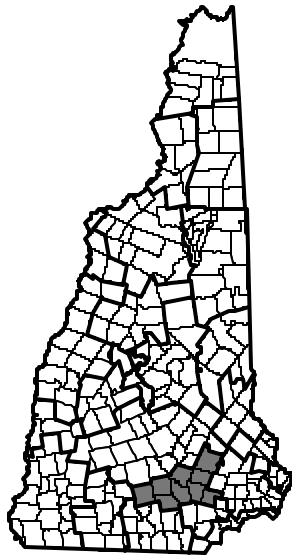


Manchester Healthcare Service Area Regional Health Profile



This narrative is part of a larger effort, the *New Hampshire Regional Health Profiles*, and grew out of a mandate established by the Legislature in its passage of SB 183 in 1999. That bill amended RSA 126A to include a requirement for the Department of Health and Human Services to continually assess the health status of the State's residents and to make its findings available in a report issued every two years.

This narrative was jointly developed by the Dartmouth Hitchcock Alliance and the Department and is the first to be issued under this legislation. The *Regional Profiles* provide a means for residents, community leaders, planners and providers to gain a better understanding of the health status of the State's residents and communities.

The *Regional Profiles* provides information that can be used to establish local *Healthy New Hampshire 2010* targets and to meet the needs assessment expectations of the State's Community Benefits legislation

Overview of the HSA

The Manchester Healthcare Service Area (HSA) consists of eight towns and the City of Manchester. Because the City of Manchester is so populous, this profile describes the full HSA, the City of Manchester, and the balance of the Manchester HSA Communities, permitting readers to gauge the impact of the City on the HSA's health status.

The Manchester HSA has a population, compared to the State, that is larger in the 'children under age 14' and the 'adults aged 25 to 44' categories. The same holds true for the Manchester City area but not for the Manchester HSA Communities. The figure in the Demographic Profile compares the Manchester HSA and State population characteristics.

Town Name	1998 Pop Est	% of HSA Pop	% of HSA Self Pay Admissions	Ratio of Self-Pay Admissions to Pop Pct	1996 Per Capita Income	Pop Density (persons per sq. mi.)	Miles to Nearest Hospital*
Manchester City	105,221	64%	85%	1.3	\$17,603	3,184	-
Auburn	4,506	3%	1%	0.5	\$21,572	177	7
Bedford	15,911	10%	2%	0.2	\$34,206	486	5
Candia	3,799	2%	1%	0.5	\$21,029	125	7
Chester	3,290	2%	1%	0.5	\$21,448	126	5
Deerfield	3,449	2%	1%	0.6	\$18,212	68	19
Goffstown	15,951	10%	4%	0.4	\$18,648	429	10
Hooksett	9,674	6%	4%	0.7	\$22,985	267	9
New Boston	3,753	2%	1%	0.4	\$24,148	87	20
HSA Total	165,554				\$20,038	526	
New Hampshire	1,185,000				\$18,697	132	

* = Nearest Hospital may be in a different HSA

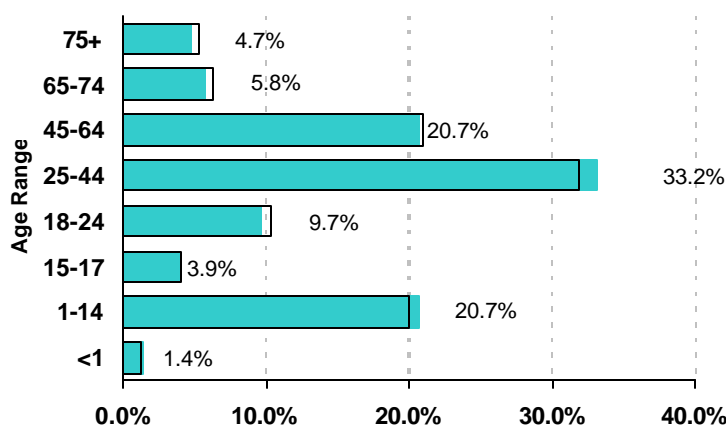
- 1998 Population Estimate = New Hampshire Office of State Planning
- Percent of HSA Self Pay Admissions = Each community's share of individual overnight hospital admissions for the full HSA that are recorded as "Self Pay" on the Uniform Hospital Discharge Data Set for 1998
- Ratio of Self-Pay Admissions to Population Percentage = Percent of HSA self-pay admissions divided by the percent of HSA population. A higher ratio reflects a greater proportion of individuals within a community who must cover the costs of hospitalization from their personal resources, i.e., they do not have health insurance coverage for the hospitalization.
- 1996 Per Capita Income = Office of State Planning, from the Department of Revenue Administration
- Population Density = Total square miles from the Office of State Planning, divided by the 1998 Population Estimate
- Miles to Nearest Hospital = mileage from a community to the nearest hospital that may not be the hospital(s) in the HSA, as given in the *1999 New Hampshire Community Profiles*, published by the State Occupational Information Coordinating Committee (SOICC) of New Hampshire

Demographic Profile

Percentage of Population by Age

Shaded and Labeled bars = HSA population profile

Outlined bar = State population profile



Graphics are based on data provided in the Primary Care Data Set, 1993-1997, which stated “State, city, and town population counts for New Hampshire have been obtained by applying the proportions from the 1995 New Hampshire Population Projections for Counties by Age and Sex to the 1995 Population Estimates of New Hampshire Cities and Towns; both of which were prepared by the New Hampshire Office of State Planning (OSP). The population figures for 1995 were chosen for use in calculating rates since this year represents the midpoint of the five years of study, 1993 through 1997... Since the town-specific age and sex population estimates are based on town-wide estimates applied to county level projections, it is assumed that there is an unknown amount of error in the individual components of the estimates. However, when combining towns together to construct HSAs, much of the variability in the town-specific estimates is assumed to be canceled.” ***Primary Care Access Data, 1993-1997***

Limited data on population and households from the national 2000 census is provided in the Census 2000 section of the ***Regional Profiles***. That data will be updated at the ***Regional Profiles*** website as it becomes available and should be used when reviewing the “Additional Indicators” section below.

Health Profile

The points offered below are provided as an overview of the health of the HSA in the three **Regional Profile** focus areas: *Current Health*, *Use of Health Care* and *Risks to Future Health*. These are provided as a representative sample of findings presented in the data tables and should not be construed as the most important findings. Readers are urged to review the data tables to better understand the conditions and circumstances of this HSA.

In some instances, the differences between the HSA and the State are described as significant. This refers to a difference being “statistically significant.”

- When the source of the data is the 1999 NH Health Insurance Coverage and Access Survey (NH HICAS), the difference is significant at the 95% confidence level, i.e., when the range between the upper and lower confidence intervals for the HSA is higher or lower than the range for the State confidence interval (the confidence ranges do not overlap).
- When the source of data is the Primary Care Access Data set (PCAD), a difference is also significant at the 95% confidence level, based on a “z test score,” a test for statistical significance, i.e., when this test statistic is “significant,” there is 95% confidence that the rates being compared are different for reasons other than “random chance.”
- Because a finding is statistically significant, i.e., not due to chance alone, the difference may not be of sufficient magnitude to be practical or meaningful to understanding the health issue or for developing strategies.
- A finding that a difference is not statistically significant may not mean that there is no value to paying attention to the difference, i.e., not being statistically significant does not mean that it is not important or necessary to consider the underlying health issues for indicators that are different between the HSA and the State, particularly on indicators that seem to show a trend or relationship, such as between indicators associated with births.

All rates in this narrative have been age-adjusted. The calculation of age-adjusted rates makes it possible to compare the rates between an HSA and the State. The proportion of the population in each age range varies from HSA to HSA and between an HSA and the State. Thus, it would be misleading to compare HSA rates to the State rate unless the rates were adjusted for this variation in the distribution of age ranges.

Please refer the *Technical Notes* section for an explanation of the age-adjustment calculation and the calculations for statistical significance and confidence intervals.

Unless noted in the text, the data date and source are given in [] at the end of each point. Key to abbreviations:

- NHES = New Hampshire Employment Security.
- NH HICAS = *New Hampshire Health Insurance Coverage and Access Survey, 1999*; Office of Planning and Research, Department of Health and Human Services.
- PCAD = *Assessing New Hampshire's Communities: Primary Care Access Data, 1993-1997*; Health Statistics and Data Management Bureau, Office of Community and Public Health.
- UHDDS = Uniform Hospital Discharge Data Set, maintained by the Health Statistics and Data Management Bureau, Office of Community and Public Health.
- US Census = Taken from 1990 Census of Population and Housing Summary Tape File 3A (STF3A), 1990 US Census data, US Department of Commerce.

Observations on Current Health

- According to the 1999 NH Health Insurance Coverage and Access Survey 94.8% of the HSA population under age 65 had a health status of “good,” “very good” or “excellent”. This was the same as the State average. Due to sample size no comparable data was available for Manchester City and the rest of the Manchester HSA Communities.
- At the time of the 1999 NH Health Insurance Coverage and Access Survey 4.1% of the HSA population under age 65 had a chronic condition lasting more than one year. This was significantly less than the State average of 5.9%. Due to sample size no comparable data was available for Manchester City and the rest of the Manchester HSA Communities.
- 3.1% of residents between 16 and 64 in the HSA had a disability and were not in the labor force, according to the 1990 US Census. The State rate was 2.9%.
 - ✓ 3.7% of the Manchester City residents between ages 16 and 64 had a disability and were not in the labor force.
 - ✓ 1.8% of the residents between ages 16 and 64 of Manchester HSA Communities had a disability and were not in the labor force.
- The HSA rate of “premature deaths” (deaths between ages 18 and 64) was significantly lower than the State rate (2.2 per 1000 population vs. 2.6 per 1000 population). [1993-1997; PCAD]
 - ✓ The rate of “premature deaths” in Manchester City was 2.4 per 1000 population ages 18 to 64.
 - ✓ The rate of “premature deaths” in the Manchester HSA Communities was significantly lower than the State rate (1.9 per 1000 population ages 18 to 64).
- Compared to the State the Manchester HSA had a significantly higher rate of heart disease mortality (5.2 per 1000 population 25 and older, vs. 3.9 per 1000 population 25 and older) and a significantly higher mortality rate from all cancers (3.6 per 1000 population 25 and older, vs. 3.2 per 1000 population 25 and older). [1993-1997; PCAD]
 - ✓ The Manchester City rate of heart disease mortality was significantly higher than the State rate (at 5.7 per 1000 population 25 and older). All cancer mortality was significantly higher than the State rate (4.0 per 1000 population 25 and older).
 - ✓ The rates of heart disease and cancer mortality (all cancers) in the Manchester HSA Communities were not significantly higher than the State rate (heart disease mortality was 4.2 per 1000 population 25 and older and mortality from all cancers was 2.9 per 1000 population 25 and older).

- The rate of low birth weight births in the Manchester HSA was 56 per 1000 live births. This was comparable to the State rate of 52 per 1000 live births. [1993-1997; PCAD]
 - ✓ The rate of low birth weight births in Manchester City was significantly higher than the State rate (67 per 1000 live births vs. 52 per 1000 live births).
 - ✓ The rate of low birth weight births in the Manchester HSA Communities was significantly lower than the State rate (41 per 1000 live births vs. 52 per 1000 live births) than the State rate.

Observations on Use of Health Care:

- 17.9% of the Manchester HSA population under age 65 were not “extremely” or “very” confident in their access to health care. This was less than, but not significantly lower, than the State average of 19%. Due to sample size, no comparable data is available on Manchester City and the rest of the Manchester HSA Communities. [1999; NH HICAS]
- According to the findings of the 1999 NH Health Insurance Coverage and Access Survey 8.1% of the Manchester HSA population under age 65 did not have a usual source of medical care. This percent was higher but not significantly greater than the State average of 6.9%. Due to sample size, no comparable data is available on Manchester City and the rest of the Manchester HSA Communities.
- 10.8% of the Manchester HSA population under age 65 did not have a physician visit in the year prior to the 1999 NH Health Insurance Coverage and Access Survey. This was less but not significantly lower than the State average of 11.7%. Due to sample size, no comparable data is available on Manchester City and the rest of the Manchester HSA Communities.
- 20.9% of the HSA population under age 65 did not have a dental visit in the year prior to the 1999 NH Health Insurance Coverage and Access Survey. This was less but not significantly lower than the State average of 21.9%. Due to sample size, no comparable data is available on Manchester City and the rest of the Manchester HSA Communities.

Ambulatory Care Sensitive Conditions = medical conditions that may not require inpatient hospitalization (a stay of at least one night) if timely and appropriate primary care is received.

- The HSA rate of hospital admissions for rapid onset ambulatory care sensitive conditions, such as pneumonia and other infections, was significantly lower than the State rate (6.2 per 1000 population vs. 7.4 per 1000 population). [1993-1998; UHDDS]
 - ✓ The rate for Manchester City (6.5 per 1000 population) was significantly lower than the State rate.
 - ✓ The rate for Manchester HSA Communities (5.9 per 1000 population) was significantly lower than the State rate.

- The HSA rate of hospital admissions for chronic ambulatory care sensitive conditions, such as asthma and diabetes, was 4.3 per 1000. This was comparable to the State rate of 4.6 per 1000 population. [1993-1998; PCAD]

- ✓ The rate for Manchester City was 4.8 per 1000 population. This rate was not statistically different from the State.
- ✓ The rate for the Manchester HSA Communities was 3.5 per 1000. This was statistically lower than the State rate.

- Compared to the State, the HSA rates of hospital admissions for ambulatory care sensitive conditions (per 1000 population) for three major age categories were comparable for pediatric and adult admissions. However, the rate for elderly admissions was significantly higher than the State rate. [1993-1997; PCAD]

	HSA	State	Ratio (HSA/State)
Pediatric	4.4	4.3	1.0
Adult	6.6	6.1	1.1
Elder*	67.6	57.4	1.2

(Pediatric = up to age 18; Adult = 18-64; Elder = 65+)

* = Significantly higher

- ✓ Manchester City:
Pediatric rate, 4.7 – ratio: 1.1
Adult rate, 7.8* – ratio: 1.3
Elderly rate, 76.4* - ratio: 1.3
* = Significantly higher than State rate
- ✓ Manchester HSA Communities:
Pediatric rate, 3.8 – ratio: 0.9
Adult rate, 4.3** - ratio: 0.7
Elderly rate, 51.6** - ratio: 0.9
** = Significantly lower than State rate

- Compared to the State, the HSA rates of hospital admissions (per 1000 population) for injuries for three major age categories were mixed. The rate of pediatric admissions was comparable to the State rate while rates of adult and elderly admissions were higher than the State rate, adults significantly so. [1993-1997; PCAD]

	HSA	State	Ratio (HSA/State)
Pediatric	2.9	3.0	1.0
Adult*	7.0	6.2	1.1
Elder	31.7	26.2	1.2

(Pediatric = up to age 18; Adult = 18-64; Elder = 65+)

* = Significantly higher

- ✓ Manchester City:
Pediatric rate, 2.9 – ratio: 1.0
Adult rate, 8.0* – ratio: 1.3
Elderly rate, 35.7* - ratio: 1.4
* = Significantly higher than State rate
- ✓ Manchester HSA Communities:
Pediatric rate, 3.0 – ratio: 1.0
Adult rate, 5.1** - ratio: 0.7
Elderly rate, 24.4 - ratio: 0.9
** = Significantly lower than State rate

Observations on Risks to Future Health

- The 1999 unemployment rate in this HSA was 2.4%, a rate slightly lower than the State rate of 2.7%. [NHES]
- According to the 1999 NH Health Insurance Coverage and Access Survey the percent of families in the HSA with incomes of less than 200% of the federal poverty level was 19%. This was lower than the State average of 21.4%. Due to sample size, no comparable data is available on Manchester City and the rest of the Manchester HSA Communities.
- 11.3% of the children under age 19 in the HSA received Medicaid and/or Food Stamp benefits. This proportion was significantly higher than the State average of 9.1%. [1993-1997; PCAD]
 - ✓ For Manchester City, the proportion of children receiving Medicaid and/or Food Stamp benefits (15.8%) was significantly higher than the State average.
 - ✓ For the Manchester HSA Communities, the rate of children receiving Medicaid and/or Food Stamp benefits (3.4%) was significantly lower than the State average.
- 2.8% of adults in the HSA received Medicaid and/or Food Stamp benefits, a proportion significantly higher than the State average of 2.1%. [1993-1997; PCAD]
 - ✓ For Manchester City, the proportion of adults receiving Medicaid and/or Food Stamp benefits was 3.4%. This was significantly higher than the State average.
 - ✓ For the Manchester HSA Communities, the proportion of adults receiving Medicaid and/or Food Stamp benefits was 1.7%. This was significantly lower than the State average.
- The percentage of HSA adults under age 65 who had completed High School was 92.1%. This was comparable to the State average of 92.2%. Due to sample size, no comparable data is available on Manchester City and the rest of the Manchester HSA Communities. [1999; NH HICAS]
- Selected birth characteristics for this HSA:
 - ✓ The rate of mothers smoking during pregnancy was 181 per 1000 live births. This was comparable to the State rate of 176 per 1000 live births. [1993-1997; PCAD]
 - ✓ The rate of maternal smoking for Manchester City was 222 per 1000 live births. This was significantly higher than the State rate.
 - ✓ The rate of maternal smoking for the Manchester HSA Communities was 94.2 per 1000 live births. This was significantly lower than the State rate.

- ✓ The rate of mothers who received late or no prenatal care was 27 per 1000 live births. This was significantly higher than the State rate of 17 per 1000 live births. [1993-1997; PCAD]
 - ✓ The rate of births with no or late prenatal care in Manchester City was 33 per 1000 live births. This was significantly higher than the State rate.
 - ✓ The rate of births with no or late prenatal care in the Manchester HSA Communities was 11.5 per 1000 live births. This was significantly lower than the State rate.
- ✓ The rate of births to teen mothers under age 18 in the HSA was 17.1 per 1000 live births. This was significantly higher than the State rate of 14.4 per 1000 live births. [1993-1997; PCAD]
 - ✓ The rate of teen births in Manchester City (21.7 per 1000 live births) was significantly higher than the State rate.
 - ✓ The rate of teen births in the Manchester HSA Communities (7.9 per 1000 live births) was significantly lower than the State rate.
- ✓ The rate of births to unmarried mothers was 265 per 1000 live births. This was significantly higher than the State rate of 223 per 1000 live births. [1993-1997; PCAD]
 - ✓ The rate of births to unmarried mothers in Manchester City (331 per 1000 live births) was significantly higher than the State rate.
 - ✓ The rate of births to unmarried mothers in the Manchester HSA Communities (121.7 per 1000 live births) was significantly lower than the State rate.
- ✓ The rate of births to mothers with less than 12 years of education was 140 per 1000 live births. This was significantly higher than the State rate of 109 per 1000 live births. [1993-1997; PCAD]
 - ✓ The rate of births to mothers with less than 12 years of education in Manchester City (181 per 1000 live births) was significantly higher than the State rate.
 - ✓ The rate of births to mothers with less than 12 years of education in the Manchester HSA Communities (51.6 per 1000 live births) was significantly lower than the State rate.
- ✓ The rate of births covered by Medicaid was 213 per 1000 live births. This was comparable to the State rate of 207 per 1000 live births. [1993-1997; PCAD]
 - ✓ The rate of births covered by Medicaid in Manchester City (276 per 1000 live births) was significantly higher than the State rate.
 - ✓ The rate of births covered by Medicaid in the Manchester HSA Communities (75.4 per 1000 live births) was significantly lower than the State rate.
- 10.6% of the HSA population under age 65 did not have health insurance for some portion of the year prior to the 1999 NH Health Insurance Coverage and Access Survey. This rate was comparable to the State rate of 11.4%. Due to sample size, no comparable data is available on Manchester City and the rest of the Manchester HSA Communities.

- 9.6% of the HSA population under age 65 did not have health insurance coverage at the time of the 1999 NH Health Insurance Coverage and Access Survey. This was comparable to the State rate of 9.3%. Due to sample size, no comparable data is available on Manchester City and the rest of the Manchester HSA Communities.
- 22.2% of the HSA population under age 65 did not have dental coverage at the time of the 1999 NH Health Insurance Coverage and Access Survey. This was lower than, but not significantly different from the State rate of 25.7%. Due to sample size, no comparable data is available on Manchester City and the rest of the Manchester HSA Communities.

Additional Observations

By reviewing census data, it is possible to learn much about the people living in a community. Unfortunately, the most recent census available is from the 1990 US Census. It will be helpful to compare data from the 2000 census (which is underway) to that from 1990 to see how this HSA has changed in terms of:

- Households with children headed by single parents – In 1990 18.1% of households with children in the HSA were headed by a single parent (female headed: 14.2%; male headed: 3.9%). The State average was 17% of households headed by a single parent (13.1% were female headed and 3.9% were male headed). [1990; US Census]
 - ✓ In Manchester City 23.8% of households with children were headed by a single parent (18.8% were female headed and 4.9% were male headed).
 - ✓ In the Manchester HSA Communities 9% of households with children were headed by a single parent (6.7% were female headed and 2.2% were male headed).
- Income distribution – In 1990 13.2% of the families in the HSA had incomes below \$20,000 and 41.1% of the families in the HSA had incomes greater than \$50,000. The State average was 15.2% of families with income below \$20,000 and 37.0% of families with incomes greater than \$50,000. [1990; US Census]
 - ✓ In Manchester City 16.9% of the families had incomes below \$20,000 and 32.7% had incomes above \$50,000.
 - ✓ In the Manchester HSA Communities 6.4% of the families had incomes with less than \$20,000 and 56.6% had incomes with more than \$50,000.
- People isolated by virtue of:
 - ✓ Living alone – In this HSA 23.3% of the households were classified as “single person” compared to the State average of 21.9%. [1990; US Census]
 - ✓ In Manchester City 27.8% of households were classified as “single person.”
 - ✓ In the Manchester HSA Communities 12.4% of households were classified as “single person.”

- ✓ Not speaking English – In this HSA 3.2% of the households were linguistically isolated compared to the State average of 1.5%. [1990; US Census]
 - ✓ In Manchester City 4.1% of the households were linguistically isolated.
 - ✓ In the Manchester HSA Communities 0.9% of the households were linguistically isolated.
- ✓ Not owning a vehicle – In this HSA 19% of the population did not have personal transportation compared to the State average of 16.1%. [1990; US Census]
 - ✓ In Manchester City 19.2% of the population did not have personal transportation available.
 - ✓ In the Manchester HSA Communities 17.2% of the population did not have personal transportation available.
- Population stability, as reflected in:
 - ✓ Not relocated over the last 5 years – In this HSA 46.9% of the households lived in the same location at least 5 years compared to the State average of 47.8%. [1990; US Census]
 - ✓ In Manchester City 45% of the households lived in the same location at least 5 years.
 - ✓ In the Manchester HSA Communities 51.9% of the households lived in the same location at least 5 years.
 - ✓ Owned a home rather than rented – In this HSA 68.3% of the population lived in owner-occupied housing compared to the State average of 73.6%. [1990; US Census]
 - ✓ In Manchester City 56.8% of the population lived in owner-occupied housing.
 - ✓ In the Manchester HSA Communities 90.8% of the population lived in owner occupied housing.